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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,671	10/30/2003	Sumit Roy	200313242-1	3556

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

CHANG, JULIAN

ART UNIT	PAPER NUMBER
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2152

NOTIFICATION DATE	DELIVERY MODE
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03/03/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary	Application No. 10/698,671	Applicant(s) ROY ET AL.	
	Examiner JULIAN CHANG	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/05/04-10/15/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to communication filed on 10/30/2003. Claims 1-40 are pending, and have been examined below.

Claim Objections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 6, 8, 10-12, 14, 16, 18, 33, 34 and 36-39 are rejected under 35

U.S.C. 102(e) as being anticipated by U.S. Pub. No. 2003/0158913 ("Agnoli").

3. Regarding claims 1 and 33, Agnoli teaches a method comprising:

identifying a type of service to be performed on an item of content, wherein said item of content is identified during a session involving a client device (para. [0027]);

using an estimate of resources associated with performing said service to select a provider from a plurality of providers capable of performing said service ('considers the processing load that will be created by the transcoding task', para. [0029]); and

providing information for transferring said session to said provider, wherein said provider performs said service on said item of content upon being transferred said session ('initiates a transcode task at a transcoding server', para [0085]; '...then performs the transcode task in the manner specified...' para. [0086]).

4. Regarding claims 11 and 37, Agnoli teaches a method comprising:

identifying a type of service to be performed on an item of content, wherein said item of content is identified during a session involving a client device ('specifies one of several types of processing, depending on the media content requested', para. [0027]);

maintaining a record comprising resources associated with a plurality of providers capable of performing said service ('maintain accurate load values for all servers', para. [0098]; see also paras [0094]—[0104]); and

selecting a provider from said plurality of providers based on information in said record ('allocation of the transcoding task to a particular transcoding server...', para. [0096]; see also paras [0094]—[0104]), wherein said session is transferred to said provider, wherein data for said item of content are streamed from a source to said provider and wherein service result data are streamed from said provider to said client device ('Source media content is obtained from an origin server...', para [0085]; 'resulting transcoded media content is then sent to a distribution server...passes the transcoded media content to publishing...which forwards the transcoded media content to client', para. [0086]).

5. Regarding claims 2 and 14, Agnoli teaches estimating computational resources associated with performing a service ('CPU load', para. [0097]).

6. Regarding claims 3 and 34, Agnoli teaches:

maintaining a record comprising resources available at each provider ('record ...statistics on their load (e.g., average CPU load, maximum CPU load) into a database', para [0097]); and

selecting said provider according to said record ('allocation of the transcoding task to a particular transcoding server...', para. [0096]; see also paras [0094]—[0104]).

7. Regarding claims 6, 16, 36 and 39, Agnoli teaches:

maintaining a record comprising providers to which sessions have been transferred ('tracks the state of new tasks...calculates server load as the measured current sever load plus the load estimate for each of the newly allocated tasks on that transcoding server', para. [0099]); and

selecting said provider according to said record ('allocation of the transcoding task to a particular transcoding server...', para. [0096]; see also paras [0094]—[0104]).

8. Regarding claims 8 and 18, Agnoli teaches receiving an indication from a provider that a service is completed ('Upon completion...', para. [0097]).

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9. Regarding claim 10, Agnoli teaches identifying a source of an item of content, wherein data for said item of content are streamed from said source to a provider and wherein service result data are streamed from said provider to a client device ('Source media content is obtained from an origin server...', para [0085]; 'resulting transcoded media content is then sent to a distribution server...passes the transcoded media content to publishing...which forwards the transcoded media content to client', para. [0086]).

10. Regarding claims 12 and 38, Agnoli teaches:

estimating resources associated with performing a service ('considers the processing load that will be created by the transcoding task', para. [0029]; see also para. [0097]); and

updating a record to reflect a change in resources associated with said provider based on said provider performing said service ('tracks the state of new tasks...calculates server load as the measured current sever load plus the load estimate for each of the newly allocated tasks on that transcoding server', para. [0099]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4, 5, 15 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agnoli as applied to claims 1, 11 and 33 above, and further in view of U.S. Pat. No. 6,421,733 ("Tso").

12. Regarding claims 4, 5, 15 and 35, Agnoli teaches the invention substantially as claimed and described in claim 1, 11 and 33 above, but fails to teach selecting a provider based on the estimated bandwidth associated with a session and the amount of bandwidth available at each provider. However, Tso teaches selecting a service provider based on bandwidth (Col. 7, lines 15-67).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to allocate content delivery resources based on bandwidth as taught by Tso in order to account for any bandwidth guarantees.

13. Claims 7, 17 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agnoli as applied to claims 1, 11 and 37 above, and further in view of U.S. Pub. No. 2003/0046396 ("Richter").

14. Regarding claims 7, 17 and 40, Agnoli teaches the invention substantially as claimed and described in claim 1, 11 and 37 above, but fails to teach estimating the duration of a session. However, Richter teaches load-balancing content delivery resources based on the duration of an event (Para. [0262]).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to allocate content delivery resources based on the duration of an event as taught by Richter in order to account for the duration of time resources will be in use.

15. Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agnoli as applied to claims 1 and 11 above, and further in view of U.S. Pat. No. 6,407,680 ("Lai").

16. Regarding claims 9 and 13, Agnoli teaches the invention substantially as claimed and described in claim 1 and 11 above, but fails to teach redirecting a client to a provider. However, Lai teaches redirecting a viewer client to the appropriate server from which to receive the requested media content (Col. 9, lines 1-15).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to redirect a client to a streaming server as taught by Lai in order to stream media directly, thereby reducing transmission time.

17. Claims 19-23, 25-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agnoli, and further in view of Tso.

18. Regarding claim 19, Agnoli teaches a system comprising a service manager for selecting a provider from a plurality of providers, each provider capable of performing a

service on an item of content, wherein said service manager maintains a record comprising resources associated with said providers (paras [0094]—[0104]) and wherein said service manager uses an estimate of resources associated with performing said service to select said provider according to information in said record (para. [0029]).

Agnoli fails to teach receiving a request for an item of content from a portal, wherein said portal received said request from said client device. However, Tso teaches receiving a request at a portal from a client device (Col. 9, line 49-65).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a portal as taught by Tso in order to provide a client device an interface to access a server.

19. Regarding claim 26, Agnoli teaches a system comprising a service manager for selecting a provider from a plurality of providers, each provider capable of performing a service on an item of content, wherein said service manager maintains a record comprising resources associated with said providers (paras [0094]—[0104]) and wherein said service manager uses an estimate of resources associated with performing said service to select said provider according to information in said record (para. [0029]), wherein data for said item of content are streamed from a source to said provider and wherein service result data are streamed from said provider to said client device (paras [0084] - [0086]).

Agnoli fails to teach receiving a request for an item of content from a portal, wherein said portal received said request from said client device. However, Tso teaches receiving a request at a portal from a client device (Col. 9, line 49-65).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a portal as taught by Tso in order to provide a client device an interface to access a server.

20. Regarding claims 20 and 27, Agnoli-Tso teaches the invention substantially as claimed and described in claims 19 and 26 above, including updating a record to reflect a change in resources associated with a provider based on said provider performing a service (Agnoli: para. [0099]).

21. Regarding claims 21 and 28, Agnoli-Tso teaches the invention substantially as claimed and described in claims 19 and 26 above, including estimating computational resources associated with performing a service (Agnoli: para. [0097]).

22. Regarding claims 22 and 29, Agnoli-Tso teaches the invention substantially as claimed and described in claims 19 and 26 above, including selecting a service provider based on bandwidth (Tso: Col. 7, lines 15-67).

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23. Regarding claims 23 and 30, Agnoli-Tso teaches the invention substantially as claimed and described in claims 19 and 26 above, including maintaining a record comprising providers to which sessions have been transferred (Agnoli: para. [0099]).

24. Regarding claims 23 and 30, Agnoli-Tso teaches the invention substantially as claimed and described in claims 19 and 26 above, including receiving an indication from a provider that a service is completed (Agnoli: para. [0097]).

25. Claims 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agnoli-Tso as applied to claims 19 and 26 above, and further in view of Richter.

26. Regarding claims 24 and 31, Agnoli-Tso teaches the invention substantially as claimed and described in claims 19 and 26 above, but fails to teach estimating the amount of time for a provider to perform a service. However, Richter teaches load-balancing content delivery resources based on the duration of an event (Para. [0262]).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to allocate content delivery resources based on the duration of an event as taught by Richter in order to account for the duration of time resources will be in use.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Roy, et al – “A system architecture for managing mobile streaming media services”, ICDCSW 2003.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JULIAN CHANG whose telephone number is (571)272-8631. The examiner can normally be reached on Monday thru Friday 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/J. C./
Examiner, Art Unit 2152

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152